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CLAIMS

FOAM
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1. A low force electrical contact of the type in which a socket is provided that includes a plurality of tines, each of said plurality of tines adapted to extend radially away from a center, wherein the improvement comprises:

including with each of said plurality of tines a patch proximate a tip, said patch having a thickness that is greater than an adjoining undercut portion.

2. A low force electrical contact of the type in which a socket is provided that includes a plurality of tines, each of said plurality of tines adapted to extend radially away from a center, wherein the improvement comprises:

forming at least a portion of each of said plurality of tines from a high yield strength electrically conducting material and including with each of said plurality of tines a portion proximate a tip, said portion having a thickness that is greater than an adjoining undercut portion.

3. A low force electrical contact of the type in which a socket is provided that includes a plurality of tines, each

of said plurality of tines adapted to extend radially away from a center, wherein the improvement comprises:

providing at each of said plurality of tines a first stage proximate a base that includes a first inner diameter and a second stage that is disposed at the base at one end thereof and which extends therefrom to a distal end and where the second stage includes a second inner diameter at said one end thereof that is greater than the first inner diameter and wherein each of said plurality of tines includes a patch proximate a tip, said patch having a thickness that is greater than an adjoining undercut portion.

4. A low force electrical contact, comprising:

(a) a socket;

(b) a plurality of tines disposed in said socket, at least a portion of each of said tines formed of a high yield strength of metal;

(c) means for receiving a pin in said socket, wherein said pin includes a first center longitudinal axis that

is not in parallel alignment with a second center longitudinal axis of said socket, and

(d) means for connecting a wire to said socket.

5. The low force electrical contact of claim 4 wherein each of said tines includes a first stage and a second stage, said first stage having a first wall thickness that is thicker than a second wall thickness of said second stage that is disposed proximate to said first stage and which extends therefrom toward a tip of each tine.

6. The low force electrical contact of claim 4 wherein said means for receiving a pin in said socket includes providing an undercut portion in each of said tines a predetermined distance from said tip.

7. The low force electrical contact of claim 6 wherein said undercut portion extends to said first stage.

8. The low force electrical contact of claim 6 wherein each of said tines includes a patch of material that is adapted to contact a pin, said patch being disposed intermediate said tip and said undercut portion.

9. The low force electrical contact of claim 8 wherein said patch of material includes a greater thickness of material than said undercut portion.

10. The low force electrical contact of claim 8 wherein said patch of material includes an inside diameter that is less than an inside diameter of said undercut portion.

11. The low force electrical contact of claim 4 wherein each of said plurality of tines is adapted to extend radially away from a center longitudinal axis.

12. The low force electrical contact of claim 7 wherein each of said plurality of tines is adapted to make contact with said pin along a portion of the longitudinal length of each

of said plurality of tines proximate a tip of each of said tines when said pin is inserted into said socket.

13. The low force electrical contact of claim 4 wherein each of said plurality of tines includes a set that is machined therein whereby a tip of each of said plurality of tines is normally disposed closer to a center of said socket when said socket is not mated with a pin than is a second end of each of said plurality of tines that is disposed distally from said tip.

* 112 end
8 DWG

14. The low force electrical contact of claim 4 wherein each of said plurality of tines includes a first outside diameter that is proximate a tip and a second outside diameter that is greater than said first outside diameter, said second outside diameter being is disposed at a distal end from said tip, and wherein each of said plurality of tines includes a progressive increase in the outside diameter from said tip to said distal end.

200 OD > 185 OD

15. The low force electrical contact of claim 10 wherein said socket includes a hood having a predetermined inside

FUNCTIONAL LANGUAGE

diameter that surrounds said plurality of tines, and wherein
when a pin is mated inside of said socket, said plurality of
tines extend radially outward a greater amount at said tip
than at said distal end, and wherein a gap that exists
intermediate said plurality of tines and said inside
diameter of said hood is substantially identical along the
longitudinal length of said plurality of tines.

112 2~Δ

16. The low force electrical contact of claim 4 wherein said
means for receiving a pin in said socket is adapted to
accommodate an angular misalignment of a first center
longitudinal axis of said pin with respect to a second
center longitudinal axis of said socket.

17. The low force electrical contact of claim 16 wherein
said angular misalignment is equal to or less than three
degrees in magnitude.

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